Title (en)

HIGH THERMAL CONDUCTIVITY ALUMINIUM ALLOY AND PREPARATION METHOD THEREFOR

Title (de)

ALUMINIUMLEGIERUNG MIT HOHER WÄRMELEITFÄHIGKEIT UND HERSTELLUNGSVERFAHREN DAFÜR

Title (fr)

ALLIAGE D'ALUMINIUM À HAUTE CONDUCTIVITÉ THERMIQUE ET PROCÉDÉ DE PRÉPARATION Y RELATIF

Publication

EP 3741877 A4 20210428 (EN)

Application

EP 19840621 A 20190814

Priority

- CN 201811532160 A 20181214
- CN 2019100502 W 20190814

Abstract (en)

[origin: EP3741877A1] The present invention provides a high thermal conductivity aluminum alloy, which comprises the following components in percentage by weight: Al: 80% - 90%; Si: 6.5% - 8.5%; Fe: 0.2% - 0.5%; Zn: 0.8% - 3%; V: 0.03% - 0.05%; Sr: 0.01% - 1%; graphene: 0.02% - 0.08%. In the high thermal conductivity aluminum alloy of the present invention, alloying elements including Si, Fe, and Zn are optimized; Sr, V, graphene, among others are added. The amount of each component is controlled so that they coordinate to ALLOW high thermal conductivity, good casting performance and excellent semi-solid die-casting property. Graphene is introduced to the high thermal conductivity aluminum alloy of the present invention to exploit the good thermal conductivity of graphene, allowing the formation of a high thermal conductivity aluminium alloy.

IPC 8 full level

C22C 21/04 (2006.01); **B22D 17/00** (2006.01); **B22D 17/20** (2006.01); **C22C 1/02** (2006.01); **H01L 23/373** (2006.01)

CPC (source: CN EP KR US)

B22D 17/007 (2013.01 - CN EP KR US); **B22D 17/2069** (2013.01 - EP); **C22C 1/02** (2013.01 - EP); **C22C 1/026** (2013.01 - EP KR); **C22C 1/06** (2013.01 - CN KR US); **C22C 1/1036** (2013.01 - CN KR US); **C22C 1/1073** (2023.01 - CN KR); **C22C 1/12** (2023.01 - CN KR US); **C22C 21/02** (2013.01 - CN EP KR US); **C22C 21/04** (2013.01 - EP); **C22F 1/04** (2013.01 - EP); **C22F 1/043** (2013.01 - EP); **H01L 23/3736** (2013.01 - EP); C22C 1/1073 (2023.01 - US)

Citation (search report)

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- See also references of WO 2020020382A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

EP 3741877 A1 20201125; **EP 3741877 A4 20210428**; CN 109652686 A 20190419; CN 109652686 B 20200526; JP 2021507120 A 20210222; JP 7121804 B2 20220818; KR 102523499 B1 20230419; KR 20200088454 A 20200722; US 11898224 B2 20240213; US 2021062304 A1 20210304; WO 2020020382 A1 20200130

DOCDB simple family (application)

EP 19840621 A 20190814; CN 201811532160 A 20181214; CN 2019100502 W 20190814; JP 2020552094 A 20190814; KR 20207018181 A 20190814; US 201916962224 A 20190814